TNR Fact Sheet No. 3

Rabies

"Rabies is a preventable viral disease of mammals most often transmitted through the bite of a rabid animal," explains the Centers for Disease Control and Prevention on its website. While it's true that domestic animals—including cats—are at risk of contracting and spreading rabies, such instances are relatively rare in the U.S. Of the 49 rabies cases reported in humans since 1995, 10 were the result of dog bites that occurred outside of the U.S.; the remainder were traced either to wildlife or were of unknown origins.[1]

The exposure risks posed by TNR programs—and free-roaming cats in general—are often grossly exaggerated by TNR opponents attempting to exploit what's been described as "our dark fascination with rabies."[2] Such misinformation does little to shape sound public health policy, and may actually have the opposite effect—increasing exposure risk by impeding efforts to vaccinate stray, abandoned, and feral cats.

Claim: Cats are responsible for an increasing number of human exposures to rabies.

The science: Approximately 92 percent of rabid animals reported to the CDC during 2010 were wildlife. Cases among domestic animals included 303 cats (4.9 percent), 71 cattle (1.1 percent), and 69 dogs (1.1 percent).[3] Since 1960, only two cases of human rabies have been attributed to cats.[4]

Some additional context: While it's true that the number of rabies cases reported in cats has risen in recent years, this trend reflects neither the prevalence of rabies nor the threat of human exposure. The way in which rabies cases are reported to the CDC varies widely. "State health authorities have different requirements for submission of specimens for rabies testing, therefore, intensity of surveillance varies," explains a 2009 report of CDC data. "Because most animals submitted for testing are selected because of abnormal behavior or obvious signs of illness, percentages of tested animals with positive results in the present report are not representative of the incidence of rabies in the general population."[5] In other words, reports of rabies cases—such as those typically provided by the CDC—are not an accurate measure of *overall infection rates*. "Further, because of differences in protocols and submission rates among species and states, comparison of percentages of animals with positive results between species or states is inappropriate."[6] Unfortunately, such comparisons are commonplace among TNR opponents opponents eager to exaggerate the risk of rabies.[5,7]

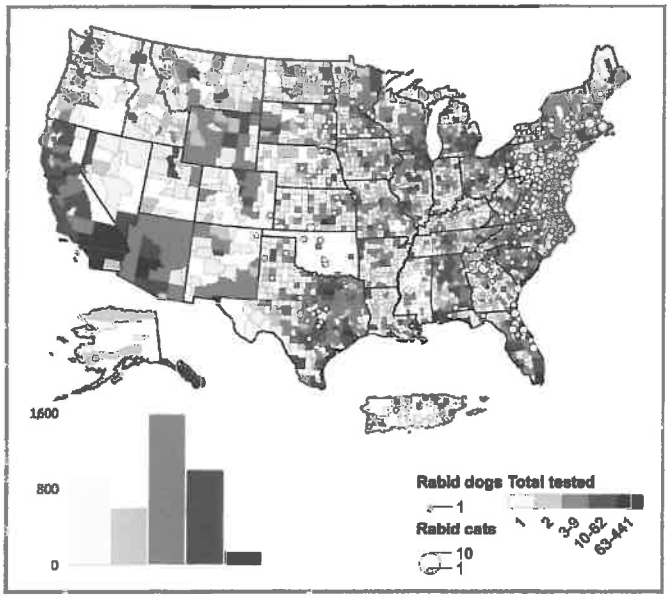

Figure 1. Reported cases of rabies involving cats and dogs, by county and municipio (Puerto Rico), 2010. Histogram represents numbers of counties in each category for total number of cats and dogs submitted for testing. (Adapted from Blanton et al. 2011.[3])

> **"Our very first project proved the efficacy of neuter/return plus vaccination to keep raccoon rabies from spreading among feral cats at eight sites in Connecticut."**
>
> ***—Merritt Clifton, editor,* Animal People**

While surveillance data cannot be used to estimate infection rates broadly, these data are useful for describing large-scale trends. For example, rabies cases in cats are concentrated mostly in the Mid-Atlantic states, the Southeast, and Texas, as indicated in Figure 1. "Most (82.2 percent) of the 303 rabid cats were reported from states where raccoon rabies was enzootic," explains a report of 2010 rabies surveillance data complied by the CDC, "with two states (Pennsylvania and New York) accounting for nearly a third of rabid cats reported during 2010."[3] It has been suggested that the origins of raccoon rabies in the Mid-Atlantic states can be traced to the mid-1970s and "the importation of rabid raccoons from Florida by hunters."[8-10]

In 2011, it was reported that an eight-year-old Humboldt County, CA, girl contracted rabies. The story made headlines nationwide, as she was just "the third person in recent U.S. history to recover from rabies without getting the rabies vaccine."[11] Although both news accounts[11] and public health reports[3] focused on free-roaming cats near the girl's school, an extensive investigation (during which "local public health officials implemented a

program to collect and identify cats at the school") was unable to locate any rabid cats.[4] In the end, the source of the girl's rabies infection remains a mystery.[1]

Claim: Trap-neuter-return programs increase the public health risk of rabies exposure.

The science: "From the public health perspective," argues Merritt Clifton, editor of Animal People, "neuter/return plus vaccination replaces high mortality and birth rates among often-diseased feral cats… with stable populations of healthy animals." And, as Clifton[1] explains, such efforts not only reduce the risk of transmission from domestic animals to humans, but also serve as a barrier between wildlife and humans. "Our very first [TNR] project [1991–1992] proved the efficacy of neuter/return plus vaccination to keep raccoon rabies from spreading among feral cats at eight sites in Connecticut."[12] A 2012 nationwide survey of "feral cats groups" conducted by Alley Cat Rescue revealed that 96 percent of the groups provide rabies vaccinations as part of their TNR programs.[13]

Some additional context: Bans on the feeding of outdoor cats—often proposed by TNR opponents—impede efforts not only to sterilize free-roaming cats, but also to vaccinate them. As a result, feeding bans can *increase* the risk of rabies spreading from wildlife to domestic animals, and ultimately to humans.

Claim: Trap-neuter-return programs ignore the need for rabies boosters.

The science: Julie Levy, Maddie's Professor of Shelter Medicine at the University of Florida's College of Veterinary Medicine—and one of this country's foremost experts on feral cats—argues that, "even a single dose of rabies vaccination provides years of protection against rabies infection."[14]

Some additional context: In addition to being largely unnecessary, rabies boosters pose an enormous challenge to TNR groups—both logistically and financially. Knowing this, TNR opponents will sometimes push for boosters to be an integral part of local ordinances governing TNR and colony management. Like feeding bans, such restrictions are likely to have the opposite effect of their apparent intent, increasing the risk of rabies exposure to domestic animals and humans.

1. Winner of the 15th Annual ProMED-mail Award for Excellence in Outbreak Reporting on the Internet, presented by the International Society for Infectious Diseases for contributions to the identification and control of emerging disease.

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